

Application/Control Number: 09/731,653

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Cancel claim 1.

2. An information record medium according to claim 1, wherein
said control information in each of said first data groups

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respectively includes a second search prohibit information, which indicates a prohibition of the search operation of respective one of said second data groups including said control information by said reproducing apparatus.

3. An information record medium having a record track recorded with at least video information and audio information to be reproduced by a reproducing apparatus, which comprises a read means and reproduces said at least video and audio informations while relatively moving said read means along said record track, wherein:

said at least video and audio informations and control information comprising access information to access said video and audio informations are recorded on said record track such that said video, audio and control informations are divided into a plurality of first data groups, each of which is a unit able to be accessed by said reproducing apparatus and each of which comprises said video, audio and control informations; and

management information including (i) reproduction procedure information prescribing a reproduction procedure of said video and audio informations and (ii) a plurality of first selection prohibit informations each indicating a prohibition of selecting arbitrary at least one of a plurality of streams of said audio information which correspond to one stream of said video information and among which a desired stream is to be selected and reproduced by said reproducing apparatus, for respective one of second data groups each of which comprises a plurality of said first data groups to be reproduced

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continuously by said reproducing apparatus in accordance with said reproduction procedure information, is collectively recorded at one portion of said record track for each of said second data groups.

4. An information record medium having a record track recorded with at least video information and sub picture information to be reproduced by a reproducing apparatus, which comprises a read means and reproduces said at least video and sub picture informations while relatively moving said read means along said record track, wherein:

said at least video and sub picture informations and control information comprising access information to access said video and sub picture informations are recorded on said record track such that said video, sub picture and control informations are divided into a plurality of first data groups, each of which is a unit able to be accessed by said reproducing apparatus and each of which comprises said video, sub picture and control informations; and

management information including (i) reproduction procedure information prescribing a reproduction procedure of said video and sub picture informations and (ii) a plurality of first selection prohibit informations each indicating a prohibition of selecting arbitrary at least one of a plurality of streams of said sub picture information which correspond to one stream of said video information and among which a desired stream is to be selected and reproduced by said reproducing apparatus, for respective one of second data groups each of which comprises a plurality of said first data groups to be reproduced continuously by said reproducing apparatus in

accordance with said reproduction procedure information, is collectively recorded at one portion of said record track for each of said second data groups.

5. An information recording apparatus for recording an information record medium having a record track recorded with at least video information to be reproduced by a reproducing apparatus, which comprises a read means and reproduces said at least video information while relatively moving said read means along said record track, said information recording apparatus comprising:

an access information generation means for generating access information to access said video information in association with said video information:

a record means for recording said at least video information and control information comprising said generated access information onto said record track such that said video and control informations are divided into a plurality of first data groups, each of which is a unit able to be accessed by said reproducing apparatus and each of which comprises said video and control informations, and for further recording management information including (i) reproduction procedure information prescribing a reproduction procedure of said video information and (ii) a plurality of first search prohibit informations each indicating a prohibition of a search operation by said reproducing apparatus for respective one of second data groups each of which comprises a plurality of said first data groups to be reproduced continuously by said reproducing

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apparatus in accordance with said reproduction procedure information, collectively at one portion of said record track for each of said second data groups; and

an input means for inputting said first search prohibit informations.

6. An information recording apparatus according to claim 5, wherein:

said record means records said control information such that said control information in each of said first data groups respectively includes a second search prohibit information, which indicates a prohibition of the search operation of respective one of said second data groups including said control information by said reproducing apparatus; and

said input means is constructed to further input said second search prohibit information.

7. An information recording apparatus for recording an information record medium having a record track recorded with at least video information and audio information to be reproduced by a reproducing apparatus, which comprises a read means and reproduces said at least video and audio informations while relatively moving said read means along said record track, said information recording apparatus comprising:

an access information generation means for generating access information to access said video and audio informations in

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association with said video and audio informations;

a record means for recording said at least video and audio informations and control information comprising said generated access information onto said record track such that said video, audio and control informations are divided into a plurality of first data groups, each of which is a unit able to be accessed by said reproducing apparatus and each of which comprises said video, audio and control informations, and for further recording management information including (i) reproduction procedure information prescribing a reproduction procedure of said video and audio informations and (ii) a plurality of first selection prohibit informations each indicating a prohibition of selecting arbitrary at least one of a plurality of streams of said audio information which correspond to one stream of said video information and among which a desired stream is to be selected and reproduced by said reproducing apparatus, for respective one of second data groups each of which comprises a plurality of said first data groups to be reproduced continuously by said reproducing apparatus in accordance with said reproduction procedure information, collectively at one portion of said record track for each of said second data groups; and

an input means for inputting said first selection prohibit informations.

3. An information recording apparatus for recording an information record medium having a record track recorded with at least video information and sub picture information to be reproduced

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by a reproducing apparatus, which comprises a read means and reproduces said at least video and sub picture informations while relatively moving said read means along said record track, said information recording apparatus comprising:

an access information generation means for generating access information to access said video and sub picture informations in association with said video and sub picture informations:

a record means for recording said at least video and sub picture informations and control information comprising said generated access information onto said record track such that said video, sub picture and control informations are divided into a plurality of first data groups, each of which is a unit able to be accessed by said reproducing apparatus and each of which comprises said video, sub picture and control informations, and for further recording management information including (i) reproduction procedure information prescribing a reproduction procedure of said video and sub picture informations and (ii) a plurality of second ~~selection prohibit~~ informations each indicating a prohibition of selecting arbitrary at least one of a plurality of streams of said sub picture information which correspond to one stream of said video information and among which a desired stream is to be selected and reproduced by said reproducing apparatus, for respective one of second data groups each of which comprises a plurality of said first data groups to be reproduced continuously by said reproducing apparatus in accordance with said reproduction procedure information, collectively at one portion of said record track for

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each of said second data groups; and

an input means for inputting said second selection prohibit informations.

9. An information reproducing apparatus for reproducing an information record medium in which: at least video information and control information comprising access information to access said video information are recorded on a record track such that said video and control informations are divided into a plurality of first data groups, each of which is a unit able to be accessed and each of which comprises said video and control informations; and management information including (i) reproduction procedure information prescribing a reproduction procedure of said video information and (ii) a plurality of first search prohibit informations each indicating a prohibition of a search operation for respective one of second data groups each of which comprises a plurality of said first data groups to be reproduced continuously in accordance with said reproduction procedure information, is collectively recorded at one portion of said record track for each of said second data groups, said information reproducing apparatus comprising:

a read means for reading information recorded at a predetermined read position on said record track;

a reproduction means for reproducing the information read by said read means;

a specification means for specifying an execution of the search operation with respect to said information reproducing

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apparatus; and

a control means for controlling at least one of said read means, said reproduction means and said specification means to execute the specified search operation in case that the execution of the search operation is specified by said specification means, and for further controlling at least one of said read means, said reproduction means and said specification means to reproduce said management information in advance of executing the specified search operation and not to execute the specified search operation in one second data group which prohibition of the search operation is indicated by corresponding one of said first search prohibit informations included in said reproduced management information.

10. An information reproducing apparatus according to claim 9, wherein:

said control information in each of said first data groups respectively includes a second search prohibit information, which ~~indicates a prohibition of the search operation of respective one~~ of said second data groups including said control information; and

said control means controls at least one of said read means, said reproduction means and said specification means to reproduce said control information in advance of reproducing said video information in each of said first data groups and not to execute the specified search operation in one second data group which prohibition of the search operation is indicated by corresponding one of said second search prohibit informations included in said reproduced

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control information.

11. An information reproducing apparatus for reproducing an information record medium in which: at least video information, audio information and control information comprising access information to access said video and audio informations are recorded on a record track such that said video, audio and control informations are divided into a plurality of first data groups, each of which is a unit able to be accessed and each of which comprises said video, audio and control informations; and management information including (i) reproduction procedure information prescribing a reproduction procedure of said video and audio informations and (ii) a plurality of first selection prohibit informations each indicating a prohibition of selecting arbitrary at least one of a plurality of streams of said audio information which correspond to one stream of said video information and among which a desired stream is to be selected and reproduced, for respective one of second data groups each of which comprises a plurality of said first data groups to be reproduced continuously in accordance with said reproduction procedure information, is collectively recorded at one portion of said record track for each of said second data groups, said information reproducing apparatus comprising:

a read means for reading information recorded at a predetermined read position on said record track;

a reproduction means for reproducing the information read by said read means;

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a specification means for specifying the desired stream of said audio information with respect to said information reproducing apparatus; and

a control means for controlling at least one of said read means, said reproduction means and said specification means to reproduce said specified desired stream of said audio information together with said one stream of said video information, and for further controlling at least one of said read means, said reproduction means and said specification means to reproduce said management information in advance of selecting or reproducing said specified desired stream of said audio information and not to select or reproduce one stream of said audio information which selection is prohibited by corresponding one of said first selection prohibit informations included in said reproduced management information.

12. An information reproducing apparatus for reproducing an information record medium in which: at least video information, sub picture information and control information comprising access information to access said video and sub picture informations are recorded on a record track such that said video, sub picture and control informations are divided into a plurality of first data groups, each of which is a unit able to be accessed and each of which comprises said video, sub picture and control informations; and management information including (i) reproduction procedure information prescribing a reproduction procedure of said video and sub picture informations and (ii) a plurality of second selection

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prohibit informations each indicating a prohibition of selecting arbitrary at least one of a plurality of streams of said sub picture information which correspond to one stream of said video information and among which a desired stream is to be selected and reproduced, for respective one of second data groups each of which comprises a plurality of said first data groups to be reproduced continuously in accordance with said reproduction procedure information, is collectively recorded at one portion of said record track for each of said second data groups, said information reproducing apparatus comprising:

a read means for reading information recorded at a predetermined read position on said record track;

a reproduction means for reproducing the information read by said read means;

a specification means for specifying the desired stream of said sub picture information with respect to said information reproducing apparatus; and

a control means for controlling at least one of said read means, said reproduction means and said specification means to reproduce said specified desired stream of said sub picture information together with said one stream of said video information, and for further controlling at least one of said read means, said reproduction means and said specification means to reproduce said management information in advance of selecting or reproducing said specified desired stream of said sub picture information and not to select or reproduce one stream of said sub picture information which

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selection is prohibited by corresponding one of said second selection
prohibit informations included in said reproduced management
information.

Add new claims 13 -23:

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--13. An information record medium to be reproduced by an information reproducing apparatus, comprising:

object information divided into a plurality of first data groups, each of the first data groups including control information;

at least one second data group which comprises a plurality of said first data groups; and
management information including reproduction procedure information prescribing a reproduction procedure of the object information,

wherein said control information includes a plurality of operation prohibit informations, each indicating a prohibition or a permission of a predetermined operation by the reproducing apparatus in response to a user's operation, is recorded at one portion of a record track, except for the portion where the object information is recorded, and

the number of reproduction operation control functions that a viewer can cause to operate to change a state of reproduction after the reproduction of the recorded material has begun is controlled by manufacture-presets of the operation prohibit information.

14. The medium according to claim 13, wherein the plurality of first data groups contained in the at least one second data group are reproduced in accordance with the reproduction procedure information.

15. The medium according to claim 13, wherein one of the plurality of operation prohibit informations indicates a prohibition of search operation by the reproducing apparatus.

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16. The apparatus according to claim 13, wherein the object information is video information.

17. An information recording apparatus for recording information on an information record medium, which is reproduced by an information reproducing apparatus, the information recording apparatus comprising:

object information generating means for generating object information to be recorded;

control information generating means for generating control information which includes a plurality of operation prohibit informations, each indicating a prohibition or a permission of a predetermined operation by the reproducing apparatus in response to a user's operation;

management information generating means for generating management information including reproduction procedure information prescribing a reproduction procedure of the object information; and

record means for recording the object information and the control information such that the object information and the control information form a plurality of first data groups, and for recording the control information at one portion of a record track except for the portion where the object information is recorded,

wherein the number of reproduction operation control functions that a viewer can cause to operate to change a state of reproduction once the reproduction of the recorded material has begun is controlled by manufacture-presets of the operation prohibit information.

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18. The apparatus according to claim 17, wherein the plurality of the first data groups forms a plurality of second data groups, and wherein the management information is generated for each of the plurality of the second data groups.

19. The apparatus according to claim 17, wherein one of the plurality of operation prohibit informations indicates a prohibition or a permission of search operation by the reproducing apparatus.

20. The apparatus according to claim 17, wherein the object information is video information.

21. An information reproducing apparatus for reproducing information from an information record medium comprising:

object information divided into a plurality of first data groups each including control information;

at least one second data group which comprises a plurality of said first data groups; and management information including reproduction procedure information prescribing a reproduction procedure of the object information,

wherein said control information includes a plurality of operation prohibit informations, each indicating a prohibition or a permission of a predetermined operation by the reproducing

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apparatus in response to a user's operation, is recorded at one portion of a record track, except for the portion where the object information is recorded,

the apparatus comprising:

read means for reading information recorded on the record medium;

reproduction means for reproducing the information read by the read means;

instruction means for instructing the predetermined operation;

detection means for detecting the management information from the information read by the read means and recorded at the one portion except for the portion where the object information is recorded; and

control means for permitting the predetermined operation when the operation prohibit information indicates that the operation is permitted, and for prohibiting the predetermined operation when the operation prohibit information indicates that the operation is prohibited,

wherein the number of reproduction operation control functions that a viewer can cause to operate to change a state of reproduction once the reproduction of the recorded material has begun is controlled by manufacture-presets of the operation prohibit information.

22. The apparatus according to claim 21, wherein one of the plurality of the operation prohibit information indicates a prohibition or a permission of search operation by the reproducing apparatus.

23. The apparatus according to claim 21, wherein the object information is video information.--

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